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10/648,247	08/27/2003	Chun-Ming Hsu	0941-0816P	3749
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BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
			EXAMINER	
			BAYARD, EMMANUEL	
			ART UNIT	PAPER NUMBER
			2611	
			NOTIFICATION DATE	DELIVERY MODE
			07/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/648,247

Applicant(s)

HSU ET AL.

Examiner

Emmanuel Bayard

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-17 is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is in response to amendment filed on 4/24/07 in which claims 1-17 are pending. The applicant's amendment and arguments have been fully considered but they are not persuasive enough therefore this case is made final. (See Examiner's response to arguments below).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Wilson U.S patent No 7,099,688 B2.

As per claim 1, Wilson teaches a receiving method for a dual-mode receiver, the method characterized in that: when a received communication signal is a wideband signal, the dual-mode receiver is configured as a direct-conversion receiver (see figs. 2, 4 element 204); and when a received communication signal is a narrowband signal, the dual-mode receiver is configured as a low-IF receiver (see figs. 2, 4 element 206 and col. 2, line 65-col. 3, lines 1-67); wherein the dual-mode receiver has hardware shared elements between two mode (see col. 1, lines 50-57)

As per claim 2, Wilson teaches wherein receipt of a communication signal by a

Art Unit: 2611

direct-conversion mode further comprises: receiving an input signal with a carrier (see col.2, lines 55-57); amplifying the input signal (see fig. 4 element 402 and col.4, lines 9-25); converting the amplified signal down to baseband signals, wherein the baseband signals comprise an I-channel signal and a Q-channel signal (see fig.4 element 404 and col.4, lines 25-39); canceling DC offsets of the I-channel signal and the Q-channel signal (see fig.4, element 416 and col.4, lines 55-65 and col.5, lines 1-10); and filtering and amplifying the signals without DC offsets to generate a pair of signals output (see fig.4 element 420 and col.5, lines 12-34).

As per claim 3, Wilson teaches wherein receipt of a communication signal by a low-IF mode organized further comprises: receiving an input signal with a carrier (see col. 2, lines 55-67); amplifying the input signal (see fig. 4 element 402 and col.4, lines 9-25); converting the amplified signal down to intermediate frequency signals, wherein the intermediate frequency signals comprise an I-channel signal and a Q-channel signal (see col.5, lines 35-38); canceling DC offsets and image of the I-channel signal and the Q-channel signal (see fig.4 element 438 and col.5, lines 49-59); filtering and amplifying the signals without DC offsets and image to generate a pair of signals (see fig.4 element 434, 436) and ; and converting the pair of signals down to base-band signals output, wherein the baseband signals comprise a second I-channel signal and a second Q-channel signal (see fig.4 element 440, 444 and col.5, line 60-col.6, lines 1-24).

Response to Arguments

1. Applicant's arguments filed 4/24/07 have been fully considered but they are not persuasive. In page 18, paragraph 3 of the response applicant asserts that Wilson et al does not teach **wherein the dual-mode receiver has hardware-shared elements between two mode**. Examiner respectfully disagrees. In fact col.1, lines 50-57 of Wilson et al clearly shows that multiple devices using the dual mode can be combined while using a different standard. Therefore applicant's arguments are moot and this case is made final.

Allowable Subject Matter

3. Claims 4-17 are allowed over the prior art of record.
4. The following is a statement of reasons for the indication of allowable subject matter: a pair of switching elements for connecting the programmable gain amplifiers to the secondary down converter when the dual-mode receiver operates in the low-IF mode as recited in claim 4. A pair of switching elements for connecting the programmable gain amplifiers to the quadrature secondary down converter when the dual-mode receiver operates in the low-IF mode as recited in claim 11.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Andre et al U.S. patent No 6,999,716 B1 teaches a dual mode radio frequency (col.4).

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM)
Alternate Friday off.

If attempts to reach the examiner by telephoné are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

7/3/2007

Emmanuel Bayard
Primary Examiner
Art Unit 2611

EMMANUEL BAYARD
PRIMARY EXAMINER

